

Almanac 2005

Strategic Principle War-winning capabilities... on time, on cost

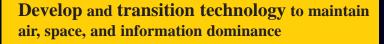
Vision To be a valued team member... of the world's most respected Air and Space Force

Mission Deliver war-winning...

Technology, Acquisition Support, Sustainment... expeditionary capabilities to the warfighter



Goals



Develop, field, and sustain war-winning expeditionary capabilities on time, on cost

Provide opportunities for career development and progression

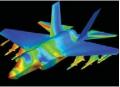
Operate quality installations

Sustain a healthy, fit, safe, and ready workforce



















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Wright-Patterson Air Force Base, Ohio

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Mission Focus

- 4 AFMC at a glance
- 14 AFMC map
- 25 Focus on AFMC reorganization

Bases at a Glance

- 6 Arnold AFB
- 7 Brooks City-Base
- **8** Edwards AFB
- 9 Eglin AFB
- 10 Hanscom AFB
- 11 Hill AFB
- **12** Kirtland AFB
- 13 Robins AFB
- 16 Tinker AFB
- 17 Wright-Patterson AFB

Specialized Units

- **19** Air Force Research Laboratory
- **20** National Museum of the U.S. Air Force
- **21** Aerospace Maintenance and Regeneration Center
- 22 Air Force Security
 Assistance Center
- **23** Operations and Sustainment Systems Group
- 24 HQ Development and Fielding Systems Group



6.8 Test Centers



9,10,17 Product Centers



11,13,16 Air Logistics Centers



19 Science and Technology



Command demographics

These statistics, current as of April 13, are complied from the Air Force Personnel Center's Interactive Demographic Analysis System, at www.afpc.randolph.af.mil and the AFMC Director of Personnel

Web site, www.afmc-mil.wpafb.af.mil/HQ-AFMC/DP/Demographic Analysis System. Total number of personnel does not account for contractor man hours.

/erage A	ge
AFMC	Air Force
34	35
29	29
47	46.5
	AFMC 34 29

	Gender	
	Male	Female
Officer Enlisted Civilian	79.3% 77.4% 67.8%	20.7% 22.6% 32.2%

Educ	ation Le	evel	
Highest attained	Officer	Enlisted	Civilian
High school +		94.2%	56.0%
Bachelor's	44.1%	4.7%	20.8%
Master's	39.4%	0.8%	13.1%
Doctorate	2.4%	unk	1.8%
Professional Degree	9.0%	unk	0.2%

	_	Officer	Enlisted	Civilian	Total
	Arnold Air Force Base, Tenn.				
	Air Force Materiel Command personnel Air Force tenant personnel	52 0	38 0	210 3	300 3
	Total	52	38	213	303
	Brooks City-Base Force Base, Texas	5			
*	Air Force Materiel Command personnel Air Force tenant personnel	404 116	576 224	785 431	1,765 771
	Total	520	800	1,216	2,536
	Edwards Air Force Base, Calif.				
	Air Force Materiel Command personnel Air Force tenant personnel	643 109	2,522 372	2,994 32	6,159 513
	Total	752	2,894	3,026	6,672
	Eglin Air Force Base, Fla.				
}	Air Force Materiel Command personnel	904	3,341	2,969	7,214
	Air Force tenant personnel Total	645 1,549	2,874 6,215	714 3,683	4,233 11,447
		,,,,,,,	3,-13	C,CCC	ŕ
39	Hanscom Air Force Base, Mass.				0.400
THE STATE OF THE S	Air Force Materiel Command personnel Air Force tenant personnel	875 215	510 350	2,083 112	3,468 677
	Total	1,090	860	2,195	4,145

	O's differen		
icer Enlisted	Civilian	Total	Hill Air Force Base, Utah
450	40.040	40.000	
458 1,684 276 2,743		12,960 3,627	Air Force Materiel Command personnel Air Force tenant personnel
734 4,427		16,587	Total
,		.,	
			Kirtland Air Force Base, N.M.
453 1,089	1,372	2,914	Air Force Materiel Command personnel
710 1,532		2,692	Air Force tenant personnel
,163 2,621	1,822	5,606	Total
			Robins Air Force Base, Ga.
405	40.046	40.400	
435 1,820 848 3,322		13,103 4,945	Air Force Materiel Command personnel Air Force tenant personnel
,283 5,142		18,048	Total
	ŕ		
			Tinker Air Force Base, Okla.
378 1,099	12,955	14,432	Air Force Materiel Command personnel
, <mark>052</mark> 3,960		5,599	Air Force tenant personnel
,430 5,059	13,542	20,031	Total
		Wrial	nt-Patterson Air Force Base, Ohio
1,974 1,97 ⁻	7 8,534	12,485	Air Force Materiel Command personnel
1,303 97	1 1,610	3,884	Air Force tenant personnel
2,94	8 10,144	16,369	Total
			AFMC Totals
5 <mark>,576</mark> 14,656	55,568	74,800	Air Force Materiel Command personnel
585 1,265	2,213	4,063	AFMC personnel at non-AFMC bases
7 <mark>,161</mark> 15,921	55,781	78,863	Total
		1: 10	
	Air Na	itional Guard	and Air Force Reserve
National Guard (A	FMC) Officer	Enlisted Total	Air Force Reserve (AFMC) Officer Enlisted Total

Budget Information for Fiscal Year 2006

DoD \$421.1 billion Air Force \$151.5 billion

AFMC \$44.7 billion (includes \$15.4 billion in Air Force Working Capital Funds)

1,889

Host unit: Arnold Engineering Development Center

Mission

o provide customers with the world's largest array of aerospace ground-based test and evaluation facilities and capabilities and to ensure test facilities, technologies and knowledge fully support today's and tomorrow's warfighters, while providing customers critical insights through partnership and excellence.



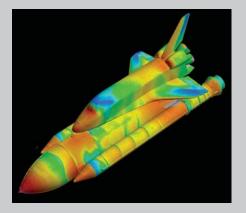
Aerospace Testing Alliance outside machinist Larry Towry speaks through a microphone to control room personnel in the Arnold Engineering Development Center's 16-foot transonic wind tunnel. Control room test personnel operate a metal arm, or sting, with a wing store above the inverted EA-18G model. Mr. Towry is ensuring the control room operators do not damage the wing store or aircraft model during subsequent testing by exceeding test points of contact between the components. (AF photo by David Housch)

Responsibilities

As the Defense Department's largest aerospace ground test and evaluation complex, AEDC scientists and engineers perform tests, engineering analysis and technical evaluations for research, system development and operational programs for all the U.S. armed forces, other government agencies and commercial aerospace industry. The center has tested some component of virtually every high-performance aerospace system in the Defense Department's inventory and most space vehicles.

Major units

Geographically separated unit: Hypervelocity Tunnel 9, White Oak, Md.



The Arnold Engineering Development Center has supported NASA's Space Shuttle Return to Flight Program, including aerodynamic testing on the space shuttle, external fuel tanks and supporting structures, using pressure sensitive paint (PSP) technology to reveal areas subjected to high pressures and temperatures upon re-entry. The new PSP technology is also being used on testing advanced weapons systems. Other Shuttle Return to Flight tests at AEDC included launching foam at tiles and new struts and hypersonic high temperature tests.

Online

Visit www.arnold.af.mil

Phone contact

(931) 454-3000 or DSN 340-5011

as *

Host unit: 311th Human Systems Wing

Responsibilities

As the world's only aerospace medicine wing, the 311th HSW produces tools and systems to assess and manage health, safety and environmental risks for the Air Force and Defense Department. Wing members train about 7,000 aeromedical personnel annually and handle more than 140 technical acquisition and sustainment programs, including force health protection, direct mission support, and education and training. The 311th HSW's primary organizations include the Air Force Institute for Operational Health, the U.S. Air Force School of Aerospace Medicine, the 311th Mission Support Group and the Performance Enhancement Directorate. Brooks Air Force Base became Brooks City-Base in 2002 with the Air Force as the anchor tenant. The Brooks Development Authority operates the city-base and provides planning, marketing and management to stimulate private sector economic development with a wide range of economic incentives. The base provides municipal and related services. This unique approach strengthens corporate and academic partnerships while significantly reducing the wing's operating costs.

Major units

Air Force Medical Support Agency; Air Force Outreach Program Office; Air Force Audit Agency; 68th Information Operations Squadron; Air Force Research Laboratory; U.S. Army Medical Research Detachment; Air Force Center for Environmental Excellence; Naval Health Research Center Detachment; Human Systems Group

Mission

o enhance and sustain human performance for dominant air and space power. The 311th Human Systems Wing is the birthplace, home and future of aerospace medicine. Because the human is the key enabler—even in unoccupied systems—we enhance the performance of the air expeditionary warfighter through aerospace medicine knowledge, technology and full integration with Air Force systems, unleashing human capability to maximize air and space power.



Brooks City-Base houses the U.S. Air Force's Hyperbaric Medicine Operations Center. It is the DoD Center of Excellence in Hyperbaric Medicine and is engaged in cutting-edge initiatives in the areas of operational and expeditionary support to warfighters, education and training, clinical hyperbarics and research. Hypobaric chambers are used to train aircrews on the physiological effects of altitude on their bodies during flight. Aircrews experience hypoxia and rapid decompression so they will be able to recognize their symptoms and respond appropriately if they encounter these phenomena during flight. (AF photo)

Phone contact

Online

(210) 536-1110 or DSN 240-1110

Visit www.brooks.af.mil

Host unit: 95th Air Base Wing

Primary Unit: Air Force Flight Test Center

Mission

conducting and supporting the research, development, test and evaluation of aerospace systems from concept to combat. The center's vision—to be the path to success for delivering war-winning capabilities—is a key component in making the work accomplished at Edwards a success. Along with the 95th Air Base Wing, the center operates the 412th Test Wing, which oversees the U.S. Air Force Test Pilot School. From developing the country's first jet aircraft to the Air Force's newest fighter, the F/A-22 Raptor, Edwards AFB test forces have played a vital role in virtually every aircraft to enter the Air Force inventory since World War II. This combat support establishes the Flight Test Center's direct and tangible link to the warfighter. Edwards AFB is also home to NASA's Dryden Flight Research Center and considerable test activity conducted by America's commercial aerospace industry.



A B-2 Spirit drops Joint Direct Attack Munitions separation test vehicles over Edwards AFB, Calif. (Courtesy photo)

Online

Visit www.edwards.af.mil

Responsibilities

AFFTC experts make sure current and future Airmen have proven equipment to accomplish their mission. When necessary, test forces deploy and operate developmental test aircraft and systems to support combat missions. Center experts contribute to U.S. fighting forces via test and evaluation, which influences weapon systems design to make sure operational warfighting, combat support or training requirements are met. AFFTC operates the Edwards AFB Flight Test Range, 20,000 square miles of airspace, including three supersonic corridors and four aircraft spin areas. Edwards AFB has an array of ground test facilities. The Avionics and Test and Integration Complex, which includes the Benefield Anechoic Facility, allows complete testing on a fully integrated avionics suite in a simulated flight environment, including electronic threats and computer software checkout.

Major units

Dryden Flight Research Center (NASA); Air Force Research Laboratory's Propulsion Directorate; Air Force Operational Test and Evaluation Center, Detachment 5; 31st Test and Evaluation Squadron (ACC); Marine Aircraft Group 46, Detachment Bravo

Weapon systems

B-1B; B-2A; B-52H; F/A-22; F16A/B/C/D; T-38A/B/C; AT-38B; C-17A; C-12C; C-130H/J; MC-130E; C-135C; KC-135E; CV-22; NKC-135B/E/R; F-117A; MV-22; RQ-4A (Global Hawk); YAL-1A (Airborne Laser) and X-45 (Predator)

Phone contact

(661) 277-1110 or DSN 527-1110

Host unit: 96th Air Base Wing

Responsibilities

The center serves as the focal point for all Air Force armament. It applies advanced technology, engineering and programming efficiencies across the product life cycle to provide superior combat capability to the warfighter. The center plans, directs and conducts test and evaluation of armament, navigation, guidance systems and command and control systems. It operates at two Air Force installations, Eglin and Kirtland AFB, N.M., by providing host support and supporting the largest single-base mobility commitment in the Air Force. The center accomplishes its mission through four components. The first three, located at Eglin, are: the Armament Product Directorate, the 46th Test Wing, and the 96th Air Base Wing. The 377th Air Base Wing is located at Kirtland. To date, Eglin has deployed more than 4,000 personnel in support of Operations Noble Eagle, Enduring Freedom and Iraqi Freedom.

Major units

33rd Fighter Wing; 53rd Wing; 919th Special Operations Wing; Air Force Research Laboratory Munitions Directorate; Navy's Explosive Ordnance Disposal School; Army's Camp James E. Rudder Ranger Training Site

Weapon systems

Air Armament Center is home to more than 40 weapon systems, including the Advanced Medium Range Air-to-Air Missile; the EGBU-15, an enhanced model of the GBU-15; the GBU-28; the CBU-97/B Sensor Fuzed Weapon; the Joint Direct Attack Munition; the Joint Air-to-Surface Standoff Missile; and the Small Diameter Bomb.

Primary Unit: Air Armament Center

Mission

ready forces in planning, developing, producing, fielding and sustaining all air-delivered munitions. The Air Armament Center, Eglin Air Force Base, Fla., is responsible for the development, acquisition, testing, deployment and agile combat support of all air-delivered munitions. The base's contributions have spanned seven wars and continue with Operations Enduring Freedom, Noble Eagle and Iraqi Freedom. AAC delivered 950 counter-air missiles and 33,000 air-to-ground weapons for OEF and OIF, including the Passive Attack Weapon and the Massive Ordnance Air Blast. The center tripled its production of Joint Direct Attack Munitions, thus providing a sufficient inventory for OIF so 70 percent of weapons used were precision guided munitions.



An F-15 belonging to the 46th Test Wing at Eglin AFB, carries clusters of Small Diameter Bombs during a test mission. (Courtesy photo)

Phone contact

Online

Visit www.eglin.af.mil

Host unit: 66th Air Base Wing

Primary Unit: Electronic Systems Center

Mission

o be the world leader in the development and acquisition of command and control systems.



An E-3A Airborne Warning and Control System from NATO's Geilenkirchen Air Base, Germany, prepares for takeoff. The AWACS provided critical information to pilots and air operations center controllers during Cooperative Cope Thunder, a simulated combat airpower employment exercise. (AF photo by Tech. Sgt. Keith Brown)

Responsibilities

ESC is constantly upgrading systems to ensure they remain state-of-the-art. Testing and experimentation occur throughout development.

These efforts are helping ESC move the Air Force toward a fully integrated and seamlessly interoperable command and control network, giving American and allied war fighters the right information at the right time so they can manage resources and defeat the enemy.

Major units

Massachusetts Institute of Technology Lincoln Laboratory; Air Force Research Laboratory's Space Vehicles and Sensors directorates. Geographically separated units include: 38th Engineering Installation Group, Tinker AFB, Okla.; Cryptologic System Group, Lackland AFB, Texas; ESC Detachment 5, Peterson AFB, Colo.; HQ Development and Fielding Systems Group, Wright- Patterson AFB, Ohio; Operations and Sustainment Systems Group, Gunter Annex-Maxwell AFB,

Weapon systems

ESC manages more than 200 programs, including the joint tactical radio system, Air Force Portal, air operations centers, tactical automated security system, AWACS, combat intelligence system, E-10, JSTARS, the distributed common ground system, core automated maintenance system/reliability and maintainability information system, integrated management communications contracts, joint surveillance system, MILSAT-COM terminal programs, multi-media automated system, multi-mission advanced tactical terminal and the theater battle management core system.

Online

Visit www.hanscom.af.mil

Phone contact

(781) 377-4441 or DSN 478-5980



Host unit: 75th Air Base Wing

Responsibilities

The Ogden Air Logistics Center provides worldwide engineering and logistics management for F-16s; maintains the A-10, C-130 and F-16; handles logistics management and maintenance for Minuteman and Peacekeeper missiles provides sustainment and logistics support for space and C3I programs; overhauls and repairs landing gear for all U.S. Air Force (and 70 percent of DoD) aircraft; is the leading provider of rocket motors, small missiles, air munitions and guided bombs, photonics imaging and reconnaissance equipment, simulators and training devices, avionics, hydraulics and pneudraulics instruments, and software.

Major units

388th Fighter Wing (ACC), 419th Fighter Wing (AFRC), Hill Aerospace Museum, Defense Enterprise Computing Center (DISA), Defense Depot Hill Utah, Defense Logistics Agency, 372nd Recruiting Group

Weapon systems

The Ogden ALC provides logistics, support, maintenance, and distribution for the weapons systems worldwide. F-16, C-130A, A-10, B-2, KC-135, T-38, T-37 and 22 other actively flying, mature and proven weapon systems, including the Minuteman III ICBM. The center is the leading provider of rocket motors, small missiles, air munitions and guided bombs and serves as the ammunition control point for the Air Force.

Primary Unit: Ogden Air Logistics Center

Mission

o provide specialized logistics support, management, maintenance and distribution for weapons systems worldwide.



Dan Farley, a materials engineer at Hill AFB's Science and Engineering Laboratory, examines a fractured surface of an F-16 main landing gear that failed in service. The main four sections of the lab—Chemical Science, Material Science, Quality Verification Center and Specialized Science and Engineering Services—find answers to questions that range from "has this glue really gone bad?" to "what caused a B-52 wheel to break?" (AF photo by Beth Young)

Phone contact

Online

Visit www.hill.af.mil

Host unit: 377th Air Base Wing

Mission

o provide world-class munitions maintenance, readiness and base operating support.



"Accident victim" Senior Airman Patrick MacKey is examined by Kirtland Air Force Base firemen, Terrence Eaton, left, and Frank Truciano, after a vehicle explosion exercise. (AF photo by Todd Berenger)

Responsibilities

The 377th ABW, an Air Force Materiel Command direct reporting unit, operates both of the Air Force's critical asset munitions depots in the United States: one at Kirtland and the other at Nellis Air Force Base, Nev. supports more than 100 federal government and private sector associate units and supplies several hundred fully trained people for worldwide contingencies. The wing provides security, legal, medical, fire response, personnel management, facility and utility management, housing, food service, chapel service, recreational, supply, airfield management and a myriad of community support activities for active duty, retired and civilian employees.

Major units

Department of Energy National Nuclear Security Administration; Sandia National Laboratories; Defense Threat Reduction Agency and Defense; Nuclear Weapons School; Missile Defense Agency Airborne Laser System Program Office; Air Force Operational Test and Evaluation Center; Air Force Inspection Agency; Air Force Safety Center; Air Force Distributed Mission Operations Center; Air Force Nuclear Weapons and Counterproliferation Agency; Air Force Research Laboratory, Space Vehicles and Directed Energy directorates; Air Force Pararescue and Combat Officers Schools; 58th Special Operations Wing; 150th Fighter Wing; Space and Missile Systems Center, Test and Evaluation.

Geographically separated unit: 896th Munitions Squadron, Nellis AFB, Nev.

Online

Visit www.kirtland.af.mil

Phone contact

(505) 846-0011 or DSN 246-0011

*

Host unit: 78th Air Base Wing

Responsibilities

The Warner Robins Air Logistics Center sustains weapons systems and delivers ready combat capability to the warfighter through robust product support, purchasing and supply chain management, and depot maintenance activities. WRALC has worldwide management and engineering responsibility for repairing, modifying and overhauling the F-15, C-130 and all Air Force helicopters. The center also provides logistical support for all Air Force air-to-air missiles, vehicles, general purpose computers and avionics and electronic systems on most aircraft. In addition, the center has worldwide management and engineering responsibility for the U-2 and performs Global Reach Improvement Program aircraft modifications and systems sustainment support on the C-17. The center supports fire-fighting equipment and vehicles of all types and is the technology repair center for lifesupport equipment, instruments, airborne electronics and aircraft propellers. WR-ALC manages more than 200,000 items representing the full range of avionics functions and technology. The center provides cradle-to-grave management support for the low-altitude navigational targeting infrared for night (LANTIRN) system, the joint tactical information distribution system and the worldwide military command and control system.

The center is also responsible for procurement, supply and maintenance functions for most Air Force bases along the East Coast, as well as the Atlantic Missile Test Range, New Foundland, Labrador, Greenland, Iceland, Bermuda, the Azores and all Air Force and Security Assistance Program activities in Europe, Africa and the Middle East.

Major units

Air Force Reserve Command Headquarters; 116th Air Control Wing; 5th Combat Communications Group; 367th Air Force Recruiting Group; Defense Information System Agency; Geographically separated units: Det. 3, Air Force Petroleum Office, Fort Belvoir, Va.; Det. 1, Air Force Metrology & Calibration, Heath, Ohio; U-2 Flight Test Det. 2, Palmdale, Calif. Primary Unit: Warner Robins Air Logistics Center

Mission

o provide combat-ready weapon systems, equipment, services and support personnel for the Air Force. The 78th Air Base Wing delivers best-value sustainment and contingency response for U.S. and allied warfighters through world-class cradle-to-grave management, maintenance and combat support.



A C-5 sits in a hangar during programmed depot maintenance. (AF photo by Sue Sapp)

Phone contact

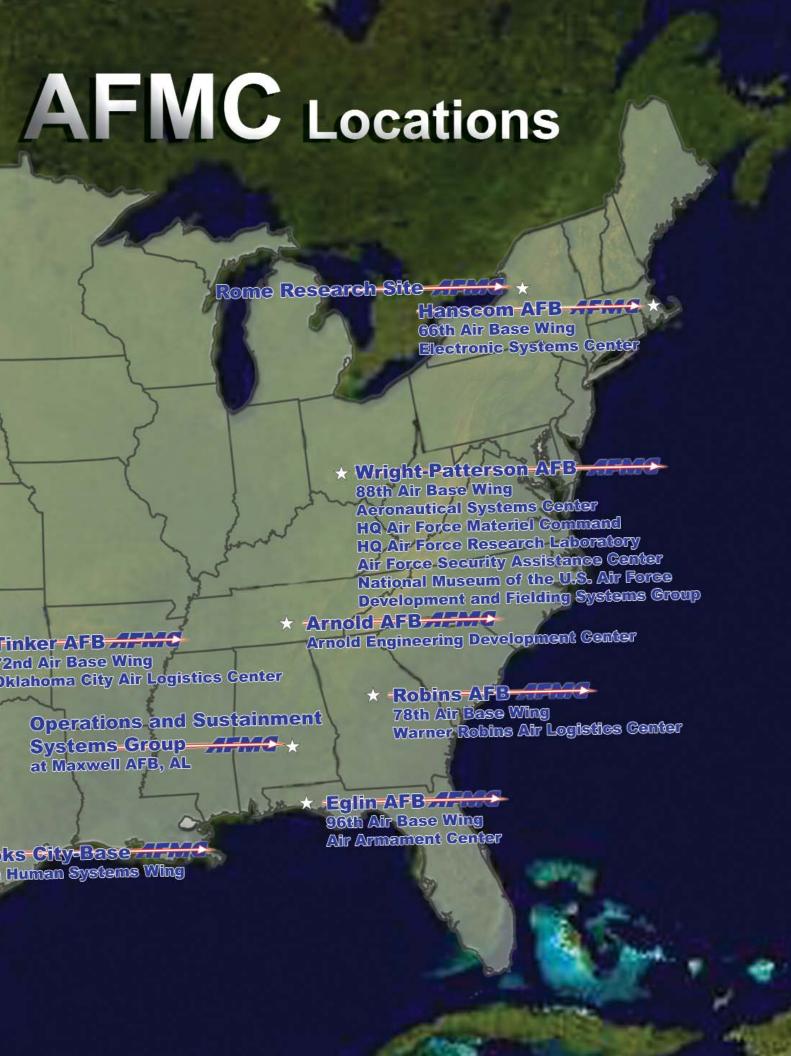
(478) 926-1110 or DSN 468-1110

Online

Visit www.robins.af.mil

LEADING EDGE ALMANAC 2005 13







Host unit: 72nd Air Base Wing

Primary Unit: Oklahoma City Air Logistics Center

Mission

o provide specialized logistics support, management, maintenance and distribution for weapon systems worldwide.



Mr. Steve Espinoza, a sheet metal mechanic, has worked for more than 50 years in the Oklahoma City Air Logistics Center. (AF photo by Margo Wright)

Responsibilities

The center repairs and maintains a variety of aircraft, including bombers, refuelers and reconnaissance aircraft. Many crucial airborne accessories are also maintained at the center, including life-support systems such as oxygen equipment and ejection seats. The center provides cradle-to-grave support for a variety of aircraft including the E-3 AWACS, C/KC-135, B-52 and B-1. The OCALC manages and maintains a \$31.2-billion inventory of more than 22,000 engines. The center is also responsible for more than 1,800 missiles and 24,800 accessories, which support thousands of aircraft, including Air Force One. It is responsible for depot-level repair, modifications, overhaul and functional check flight of the B-1, B-52, C/KC-135, E-3 and the Navy's E-6 aircraft. Engines managed include a substantial inventory from the older Pratt & Whitney TF 33 to the state-of-the-art GE118. The center's airborne accessories workload includes hydraulics, oxygen equipment, fuel accessories, bearings and life support equipment among other items.

Major units

552nd Air Control Wing; 507th Air Refueling Wing; 38th Engineering Installation Group; 3rd Combat Communications Group; Navy Strategic Communications Wing ONE; Defense Logistics Agency Defense Information System Agency; Defense Enterprise Computing Center - Oklahoma City.

Weapon systems

Aircraft include the B-1B, B-2, KC-10, E-3, E-6, B-52 and C/KC-135. The center provides contractor logistics support for commercial-derivative aircraft, including airlift, tanker and presidential aircraft. Missile systems managed by the OC-ALC include the air-launched cruise missile, conventional air-launched cruise missile, advanced cruise missiles, harpoon and bomber weapons integration equipment.

Online

Visit www.tinker.af.mil

Phone contact

(405) 732-7321 or DSN 884-1110



Host unit: 88th Air Base Wing

Responsibilities

The center arms the warfighter with world-class weapon systems, enabling combat aerospace forces to ensure global vigilance, reach and power. Its acquisition workforce and support units deliver combat capabilities to the warfighter, which meet performance, cost and schedule expectations. ASC's major acquisition programs include fighter, bomber, mobility/transport, reconnaissance, special operations, and trainer weapon systems. The center also works closely with the three Air Logistics Centers, located at Tinker AFB, Okla.; Hill AFB, Utah; and Robins AFB, Ga.

Major units

HQ AFMC; Air Force Institute of Technology; National Museum of the United States Air Force; HQ Air Force Research Laboratory; 445th Airlift Wing; National Air and Space Intelligence Center.

Weapon systems

The ASC work force sustains aging systems like the F-15, F-16, F-117, B-1, B-2, and B-52; delivers cutting-edge replacement systems like the C-17, Predator and Global Hawk unmanned aerial vehicles, F/A-22, F-35 Joint Strike Fighter. It develops tomorrow's weapon systems, like the unmanned combat aerial vehicle and airborne laser, to provide future strike, airlift and space-access capabilities.

Primary Unit: Aeronautical Systems Center

Mission

o rapidly develop, acquire, modernize and sustain the world's best aerospace systems.



Capt. Jim Govin, 55th Fighter Squadron pilot from Shaw AFB, S.C., shows off his Joint Helmet Mounted Cueing System during a visit with members of ASC's Fighter Attack Systems Wing F-16 Systems Group. The visit provided a chance for Air Combat Command warfighters to say thank you to members of the F-16 Systems Group for their work in keeping the fighter jet at the "top of its game" through upgrades such as the Common Configuration Implementation Program, or CCIP. The F-16 Systems Group has a mandate to keep F-16 aircraft on the cutting edge until 2025. Govin calls the F-16CJ, seen here in the background, "the best F-16 ever." (AF photo by 1st Lt. Bob Everdeen)

Phone contact

Online

www.wpafb.af.mil



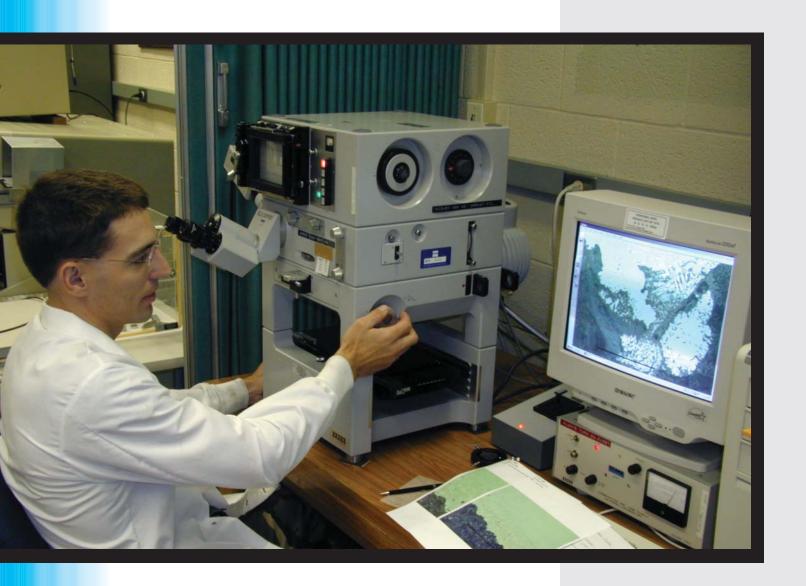
Air Force Research Laboratory

Mission

o lead the discovery, development and integration of affordable warfighting technologies for our air and space force.

Responsibilities

The Air Force Research Laboratory pioneers new capabilities for warfighters while developing the innovations for dealing with future challenges. AFRL leverages its technological information to offer potential solutions to warfighter needs for technologies, providing them rapid response capabilities.



Second Lt. Nathan Dozier investigates corrosion on an aircraft component using an optical microscope. Air Force Research Laboratory experts here will conduct investigations on C-5 Galaxy components using similar methods. Lieutenant Dozier is with the materials integrity branch at AFRL's materials and manufacturing directorate. (Courtesy photo)



AFRL directorates

Air Force Office of Scientific Research

Headquartered in Arlington, Va., AFOSR manages the Air Force's investment in basic research. They invest in research in aerospace-related science and engineering and exploit revolutionary scientific breakthroughs. AFOSR-supported research has contributed to many significant technical accomplishments, including the laser, precision munitions, stealth aircraft and the computer mouse.

Air Vehicles Directorate

Headquartered at Wright-Patterson AFB, Ohio, Air Vehicles directorate develops and transitions technological solutions for military aerospace vehicles. The emphasis is on technology development supporting cost-effective, survivable aerospace vehicles capable of accurate and quick delivery of a variety of future weapons or cargo.

Directed Energy Directorate

Headquartered at Kirtland AFB, N.M., Directed Energy develops, integrates and transitions science and technology for directed energy to include high-powered microwaves, lasers, adaptive optics, imaging and effects to assure the pre-eminence of the United States in air and space. Its people provide research and development for leading edge space capabilities. The Starfire Optical Range team conducts research in advanced tracking, adaptive optics, atmospheric physics and imaging of objects in space using telescopes.

Human Effectiveness Directorate

Headquartered at Wright-Patterson AFB, Human Effectiveness's mission is to provide science and leading-edge technology to define human capabilities, vulnerabilities and effectiveness, train warriors, integrate operators and weapons systems, protect Air Force people, and sustain aerospace operations around the world.

Information Directorate

Headquartered at Rome, N.Y., this directorate develops information technologies for aerospace command and control, and its transition to air, space and ground systems. Focus areas include a broad spectrum of technologies, including information fusion and exploitation, communications and networking, collaborative environments, modeling and simulations, information assurance and defensive information warfare and intelligence information systems technologies.

Materials and Manufacturing Directorate

Headquartered at Wright-Patterson AFB, with an additional research facility at Tyndall AFB, Fla., Materials and Manufacturing develops materials, processes and advanced manufacturing technologies for aircraft, spacecraft, missiles, rockets and ground-based systems and their structural, electronic and optical components. Their research includes revolutionary nanoscale and biotechnologies, and computational materials science to achieve unprecedented levels of performance in new materials.

Munitions Directorate

Headquartered at Eglin AFB, Fla., Munitions integrates and transitions science and technology for air-launched munitions for defeating ground, air and space targets. Its people conduct basic research, exploratory development and advanced development and demonstrations.

Propulsion Directorate

Headquartered at Wright-Patterson AFB, with an additional facility at Edwards AFB, Calif., this directorate develops air and space vehicle propulsion and power technologies. Focus areas include turbine and rocket engines, advanced propulsion systems and associated fuels and propellants for all propulsion systems.

Sensors Directorate

Headquartered at Wright-Patterson AFB, with additional research facilities at Hanscom AFB, Mass., and Rome, Sensors develops the new technologies to find and precisely engage the enemy and eliminate the ability to hide or threaten our forces. In collaboration with other directorates and Defense Department organizations, the directorate develops sensors for air and space reconnaissance, surveillance, precision engagement and electronic warfare systems. They also produce sensor and countermeasure technology.

Space Vehicles Directorate

Headquartered at Kirtland AFB, with an additional research facility at Hanscom AFB, Space Vehicles develops and transitions space technologies for more effective, more affordable warfighter missions. Primary focus areas are radiation-hardened electronics, space power, space structures and control, space-based sensing, space environmental effects, autonomous maneuvering and balloon and satellite flight experiments.

Phone contact

Online



National Museum of the United States Air Force

Mission

To provide the public an intimate glimpse into the mission, history and evolving capabilities of the U.S. Air Force. Through its vast collection, sensory exhibits and informative and entertaining events, the Museum encourages greater public awareness of, and support for, the Air Force's critical role in the nation's defense.



An aerial view of the National Museum of the U.S. Air Force, near Wright-Patterson, AFB. This view was photographed during the 2003 Dawn Patrol Rendezvous World War I Fly-In, which takes place every other year and is scheduled to take place again Sept. 30 - Oct. 2, 2005. (Courtesy photo)

On Display

Early Years, WWII, Korean and Vietnam War Galleries Cold War Gallery, featuring the only B-2 on permanent public display New Missile and Space Gallery Presidential Aircraft and Research & Development/Flight Test

Galleries

Memorial Park with more than 400 statuary memorials and plaques IMAX Theatre with a six-story screen and seating capacity of 500

Free admission and parking

Open 9 a.m. to 5 p.m. (closed Thanksgiving, Christmas and New Year's day)

Online

Visit www.wpafb.af.mil/museum/

Responsibilities

The Museum complex is operated by the U.S. Air Force and falls under the operational control of the Air Force Materiel Command. The staff of 96 civil service employees and more than 500 volunteers work across a spectrum of functional areas to help sustain the Museum's reputation as an historical institution of international esteem.

As the largest and oldest military aviation museum in the world, the Museum enables visitors to experience nearly 100 years of aviation history. Multiple galleries explore all eras of aviation history and connect the Wright Brothers' enduring legacy with today's astounding technology of speed, stealth and precision. From the earliest applications of aviation to World War I and II, the Korean and Vietnam Wars, the Cold War and the latest in stealth technology, visitors are offered the opportunity to view the institution's incomparable collection of nearly 350 aircraft and aerospace vehicles, thousands of historical items and 17 acres of indoor exhibit space.

In October 2004, the United States Air Force Museum publicly announced its formal name change to the National Museum of the United States Air Force, underscoring its national status and global profile.

The Museum holds more than 800 special events annually and offers a variety of educational programming, reaching more than 87,000 students, teachers and adults.

Phone contact

(937) 255-3286 or DSN 785-3286



Aerospace Maintenance and Regeneration Center

Responsibilities

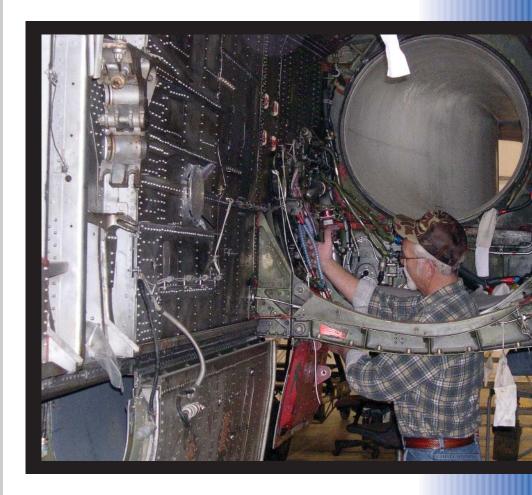
The Aerospace Maintenance and regeneration Center is a tenant unit on Davis-Monthan Air Force Base, Ariz. (Air Combat Command). A major industrial center occupying 2,600 acres, AMARC manages an inventory of nearly 4,400 aircraft and aerospace assets, as well as more than 350,000 line items of production tooling. The center's highly-skilled, 795-member workforce, returns aircraft back to service and prepares them for overland shipment. AMARC also reclaims hundreds of millions of dollars worth of weapon system components in support of parts inventory needs and global contingency operations. Leveraging proven traditional aircraft storage and disposition mission capabilities, the center has evolved to support intermediate and augmented depot level maintenance as directed and approved by headquarters AFMC.

The combination of parts reclaimed and aircraft withdrawn represent a return on taxpayer investment of more than \$1.2 billion, essentially a \$12 return for every dollar spent.

Although the center's primary customer is the Department of Defense, workloads also come from other national, regional and local government agencies, as well as foreign military allies. Four product divisions, Aircraft, Commodities, Storage and Disposal, conduct core industrial operations.

Mission

o provide critical aerospace maintenance and regeneration capabilities for joint, allied and coalition warfighters in support of global operations and agile combat support for a wide range of military operations.



Steven Herman inspects work done on an F-4 being regenerated. Mr. Herman was awarded \$10,000 for saving the Air Force and the Aerospace Maintenance and Regeneration Center more than \$72,000 in its first year. He is a pneudraulics systems specialist at AMARC. (AF photo)

Phone contact

Online



Air Force Security Assistance Center

Mission

o develop and execute international agreements with friendly foreign forces to provide defense material and services in support of U.S. national security.



Chilean Air Force Lt. Col. Henry Cleveland admires Chile's first F-16 Fighting Falcon. He is accompanied by Rudy Rodriguez, Aeronautical Systems Center F-16 Systems Group security assistance program manager, Col. Robert Stambaugh, AFSAC vice commander, and Col. Scott Jansson, ASC F-16 Systems Group commander. (AF photo by Susan Ferns)

Responsibilities

As the proven and enduring aerospace security partner, AFSAC oversees system sales and support for more than 170 models of aircraft, a fleet totaling more than 6,600. AFSAC also orchestrates AFMC product and logistic center support of security assistance needs to 103 countries and seven NATO organizations, totaling 110 customers. Located at WPAFB the center serves as a 'portfolio manager' for foreign military sales within each country and the command. AFSAC provides logistics support for numerous weapon systems dating from the 1940s, like the C-47, to modern-day systems, including the C-130, F-16, F-15, C-17 and the advanced Boeing 767 Airborne Warning and Control System. As a result of the FMS oversight responsibility, AFSAC personnel help ensure the command's international business processes comply with the Air Force policy and the Arms Export Control Act.

As part of the larger AFMC restructure, AFSAC is realigning into the traditional Air Force Wing-Group-Squadron-Flight structure by combining the current Global Management and Case Operations Directorates into the 596th International Group. The realignment will lead to greater support to our foreign allies and partners and make AFSAC more identifiable to the rest of the Air Force.

Online

Visit https://afsac.wpafb.af.mil

Phone contact

(937) 257-2552 or DSN 787-2552



Operations and Sustainment Systems Group

Responsibilities

A tenant organization on Maxwell Air Force Base, Gunter Annex, Ala., OSSG is a component of Electronic Systems Center at Hanscom AFB, Mass. The group's core competencies include: information technologies systems acquisition program management; combat support domain expertise; IT insertion in business processes; network operations support and security; and commercial IT product and service acquisition. OSSG designs, builds or buys, installs and supports information systems.

Within OSSG, five information system program offices support the operational Air Force via 61 information systems across the combat support arena, including maintenance, transportation, supply, munitions, contracting, finance, medical and operations. OSSG's Field Assistance Branch provides a 24-hour, 7-day a week point of contact for all computer system service calls supporting more than 100 Air Force standard data systems worldwide. OSSG also manages the Air Force's network operations to the service delivery point at every Air Force location. The Air Force Network Operation Center provides 24-hour, 7-day a week enterprise-wide network operation, and command, control, communications and computer (C4) situational awareness for the major commands and the Air Force. OSSG provides the contractual vehicles used throughout the Air Force to acquire commercial off-theshelf hardware, software and services at great prices used by virtually every organization on bases worldwide. OSSG also heads up the Air Force Information Technology Commodity Council. This AFITCC develops Air Force-wide strategies for buying and managing information technology products.

Mission

o support secure combat support information systems and networks for the Air Force and Defense Department components.



Staff Sgt. (first name unknown) Cannon takes inventory of a munitions trailer using a prototype wireless tablet personal computer. The PC is used to update the munitions database in real time, and is part of an upgrade in the Combat Ammunitions System program software and hardware. (Courtesy photo)

Phone contact

(334) 416-4319/4324 or DSN 596-4319/4324 **Online**

Visit www.gunter.af.mil



Development and Fielding Systems Group

Mission

o acquire and deliver horizontally-integrated information technology solutions and capabilities to Airmen and commanders.



Captain Christine Tanner uses the Information and Resources Support System, a product of DFSG. (AF photo illustration by Lt. Lundberg)

Responsibilities

Located at Wright-Patterson AFB, the Development and Fielding Systems Group supports its customers' strategic business needs, transforming how AFMC delivers capabilities to its customers. It specializes in acquiring integrated weapon system support solutions for both depot level and field operations requirements, providing multi-functional information management systems, and enterprise resource planning. DFSG works with its customers to plan, acquire, manage, and deploy over 27 programs with combined revenue of approximately \$300 million. Its IT solutions are effective, efficient, affordable, and flexible. DFSG approaches IT solutions acquisition and program management from a life-cycle perspective.

Current Air Force initiatives envision an Air Force, enterprise-wide, eBusiness environment. This targeted environment incorporates IT investments that support "best business" practices and features commercial off-the-shelf software applications as IT solutions of choice. The target Air Force environment will webenable business applications and make them accessible via the Air Force Portal. In addition, this Air Force eBusiness environment will promote shorter IT solution development cycles and press for quick return on investment timeframes. In response to this changing Air Force business environment, which is migrating to a "solution-provider" orientation, the DFSG established a corporate mission of providing market-leading information solutions. This mission necessitates DFSG's transition from primarily providing software development services to becoming the Air Force trusted agent for acquiring commercially available, comprehensive and integrated IT solutions-a mission designed to serve the growing Air Force IT solutions market.

Major units

Operating locations at Alabama and Texas

Online

http://msg.public.wpafb.af.mil

Phone contact

(937) 257-2714 or (937) 787-2714

24 LEADING EDGE ALMANAC 2005



TRANSFORMED

Sweeping reorganization of command standardizes and demystifies structure while integrating combat capabilities

any changes have taken place in Air Force Materiel Command over the past few years in an effort to transform the command along with the rest of the military. Transformation is a process by which the military achieves and maintains an advantage through changes in operational concepts, organization, and technologies that significantly improve its warfighting capabilities or ability to meet the demands of a changing security environment.

AFMC's transformational initiatives in logistics began years ago in the supply and maintenance areas. In 2004, these programs set all-time records for productivity and, as a result of better planning and closer collaboration with the operational commands, returned money from working capital funds to those customers.

In the past, AFMC would usually have to ask the other commands for more money to cover unanticipated depot maintenance costs; instead, AFMC was able to return more than half a billion dollars to aid in the Global War on Terrorism.

Purpose of Transformation

One main goal of AFMC's transformation is to de-mystify the command to the rest of the Air Force. As AFMC becomes more

closely aligned with and familiar to the other commands, accomplishing its mission will be easier and more efficient. This was the basis for converting system program offices (SPOs)into wings.

Standardization is another transformation goal. Now, a customer who knows to call one particular office at one center for a problem will be able to contact someone at another center who works under the same office symbol and get resolution to their problem.

Another goal of the transformation is to integrate capabilities. The centers had grown over time into large but very flat organizational structures. However, the individual SPOs and offices often acted like many little stovepipes according to their platform or product, with very little sharing of information between like SPOs.

Under transformation, a more vertical structure gives commanders a more manageable span of control while grouping like organizations. SPOs and offices are now aligned to share information so that common elements, such as fighter-attack aircraft avionics packages, can be shared, saving time and money and resulting in a better product.

PEO Realignment

The transformation began with the Program Executive Officer, or PEO, realignment. In August 2003, then-commander of

AFMC Gen. Lester Lyles and then-Assistant Secretary of the Air Force for Acquisition Dr. Marvin Sambur reached an agreement that AFMC product center commanders would also become the PEOs for the majority of the weapon systems programs.

The move made the Aeronautical Systems Center commander at Wright-Patterson AFB, Ohio, also the PEO for Aircraft. The Electronic Systems Center commander at Hanscom AFB, Mass., took on duties as the PEO for Command, Control and Combat Support. The commander of Air Armament Center, Eglin AFB, Fla. is now also the PEO for Weapons.

The seemingly simple move of combining jobs previously held by two different people in two different locations (Washington D.C. and the field), had an immense ripple effect. Previously, each of the various and numerous System Program Offices answered to two bosses simultaneously. In the AFMC chain of command, they were responsible to their center commander, while in the Air Force Acquisition chain of command, they worked for a PEO in the Pentagon.

The second phase of the PEO Realignment continues to develop. In it, AFMC is working to recognize and transition programs from the acquisition stage of weapon system development to the sustainment phase. The decision about where a system is in its life cycle can be complicated and determines whether a product center or air logistics center is ultimately responsible for the program.

Installation Commander Realignment

With the center commanders gaining PEO duties, AFMC commander Gen. Gregory S. Martin decided to free them of installation commander responsibilities. (*Continued on next page*) (*Continued from previous page*) By making the air base wing commanders responsible for the day-to-day base operations, each

of the center commanders could delve further into their unique missions. This applied not just to the product center commanders, but also the air logistics center commanders at Tinker AFB, Okla., Robins AFB, Ga., and Hill AFB, Utah, and the test center commander at Edwards AFB, Calif.

The shift of installation commander responsibility also caused a split for some organizations between the center and the wing. The goal of the split was to ensure that the center staffs were doing center-level work while the wing staffs took care of baselevel operations.

Headquarters Reorganization

As the centers realigned their installation commanders' responsibilities, Gen. Martin decided the headquarters also need to be reorganized. He started by clarifying the headquarters mission statement as shaping the workforce and infrastructure for the command to be able to accomplish its mission.

the AFMC's centers retired unit flags during reorganization ceremonies such as this one. New and newly designated units stood up as well. The command's three product centers were first to implement restructuring by standing up several weapon systems wings. Centers divested themselves of their installation host duties and designated air base wings for those responsibilities. Above, the 88th Logistics Group at Wright-Patterson AFB, Ohio, is deactivated in January 2005 as Col. Michael J. Belzil, then 88th ABW commander, and Col. Dennis L. D'Angelo, then 88th Logistics Group commander, sheath the unit's guidon. (AF photo by Spencer P. Lane)

The directorates within the headquarters were then aligned to focus better on the command's "Develop, Field and Sustain" missions. The new Capabilities Integration Directorate concentrates on the headquarters function for science and technology, as well as developing capabilities.

The Directorate of Operations shares part of the oversight for development and takes a renewed focus on fielding those capabilities from the acquisitions process into the combat air forces. The Directorate of Logistics is also responsible for fielding and sustainment. These directorates are the mission directorates in the headquarters.

The Directorate of Engineering performs systems engineering oversight throughout the command and the Directorate of Transformation works on Air Force and command-wide transformation and information technology efforts.

The reorganization also moved day-to-day computer network operations under Mission Support and expanded the Director of Staff's role.

Standardize Center Organizations

The next step in AFMC transformation was to standardize the staff structure at each of the centers. This standardization bridged between many of the other transformation initiatives and

provided a common template for anyone looking at AFMC from inside or out.

It was a natural step following functions being split in the installation commander realignment. It also paralleled the reorganization of staff functions at the headquarters level. Last, it

paved the way for further changes at the centers: wings, groups and squadrons.

Wings, Groups and Squadrons

The most visible effort of AFMC's Transformation efforts is organizing the Centers into a wing, group and squadron structure. The many independent SPOs were clustered with like SPOs, gaining efficiency and integration advantages. The resulting baskets of SPOs were assigned as wings, groups or squadrons based on the size and scope of their missions. The move also shifted the focus of the units from a platform-based perspective that concentrated on a particular aircraft, weapon or

system to a capability-focused viewpoint.

The product centers were the first to implement the new structure. In December 2004, the Electronic Systems Center at Hanscom AFB, Mass., stood up four wings to join its air base wing, plus some independent groups and squadrons. Aeronautical Systems Center at Wright-Patterson AFB, Ohio, followed in January with five systems wings on base. In February, Air Armament Center at Eglin AFB, Fla. activated a missile systems wing and a munitions systems wing.

The air logistics centers at Hill AFB, Utah, Tinker AFB, Okla. and Robins AFB, Ga. activated wings in the first quarter of 2005. In addition to their air base wings, the logistics centers stood up three basic wing structures. The aircraft sustainment wings provide product support for weapon systems in the sustainment phase. Combat sustainment wings perform supply management functions. The depot maintenance activities are performed by the maintenance wings.

The activation of these units presented a unique challenge to the traditional military structure. Typically, wings, groups and squadrons are headed by military commanders, but many of the units previously had civilians in charge. Federal law does not allow civilians to command military personnel. Officials reached a solution with military leaders as commanders and civilian leaders as wing, group or squadron directors. The actual

command portion of the job, like military discipline and other chain of command issues would be dealt with through squadron section commanders, like at headquarters organizations.

Resource Earning Units

Closely related to the activation of wings, groups and squadrons are resource earning units. When a capability is deemed necessary, a set of resources is allocated to, or earned by, the unit that will accomplish the mission. For example, when the Air Force needs more suppression of enemy air defenses, that decision automatically generates a squadron of aircraft, one-and-a-half pilots per aircraft, fuel for training, maintenance troops, and everything else needed to run a squadron. As long as the requirement is justified, the resources are not questioned.

While no one questions aircraft squadron resources, the same cannot be said for AFMC business. When AFMC receives a requirement for a new widget, there is no consensus about how many people and resources it takes to research, develop, acquire, sustain, and upgrade a system. In the recent era of budget cuts, this has meant AFMC has had to individually justify every organization and budget dollar each time someone has looked for cuts.

To remedy the situation, General Martin launched efforts to apply a resource-earning unit template to the command. In the future, when the Air Force determines a new air superiority fighter or radio system is necessary, the decision will automatically generate a set amount of resources and personnel to accomplish the acquisition.

Goals and Standards

As important as transforming is, it is also vital to know if the improvements are making a difference. Goals and standards will accomplish that task. Valid metrics will move the command leaps and bounds forward in effectiveness and efficiency.

"You can't know how well you're doing until you start taking some measurements and then compare your performance over time." said General Martin. "We're finding some core measures of accomplishing our mission and then we'll truly see if our changes are for the better and how much better."

A-Staff Realignment

The latest piece of the AFMC Transformation, an Air Forcewide initiative, was announced in early April 2005: A-Staff Realignment. This move will standardize Air Force staffs at the Pentagon and Major Command levels.

A common A-Staff structure will improve communication between command levels and with other services as well as reduce transition times for people to "come up to speed" on their new organization.

Adapted from an Army idea, the A-Staff structure is common in the joint world. In the joint arena, the staff numbers are preceded by the letter "J" for Joint; in Army staffs, the letter "G" is used for Ground and "S" is used for special troop alignments. "A" is for Air.

The basic structure is A-1 through A-6 with A-1 as personnel, A-2 as intelligence, A-3 as operations, A-4 as logistics, A-5 as plans and A-6 as communications. As the A-Staff Realignment is implemented, other organizations that don't easily fit into the basic construct will be incorporated as agreed upon between the major commands and air staff.

AFMC Center Restructure

Air Armament Center, Eglin AFB

- 96th Air Base Wing
- Air-Air Missile Systems Wing
- Air-Ground Munitions Systems Wing

Aeronautical Systems Center, Wright-Patterson AFB

- 88th Air Base Wing
- Fighter Attack Systems Wing
- Long Range Strike Systems Wing
- Reconnaissance Systems Wing
 - Mobility Systems Wing
- Agile Combat Support Systems Wing
 - F/A-22 Systems Wing (proposed)
- Airborne Laser Systems Wing (proposed)

Electronic Systems Center, Hanscom AFB

- 66th Air Base Wing

Command and Control, Intelligence, Surveillance and Reconnaissance Systems Wing

- Battle Management Systems Wing
- Network Centric Operations/Integration Systems Wing
 - Operations Support Systems Wing

Oklahoma City Air Logistics Center, Tinker AFB

- 72nd Air Base Wing
- 327th Aircraft Sustainment Wing
- 448th Combat Sustainment Wing
 - 76th Maintenance Wing

Ogden Air Logistics Center, Hill AFB

- 75th Air Base Wing
- 508th Aircraft Sustainment Wing
- 84th Combat Sustainment Wing
 - 309th Maintenance Wing

526th Intercontinental Ballistic Missile Systems Wing

Warner Robins Air Logistics Center, Robins AFB

- 78th Air Base Wing
- 330th Aircraft Sustainment Wing
- 542nd Combat Sustainment Wing
 - 402nd Maintenance Wing

Similar reorganizations are being considered for Arnold Engineering Development Center, Arnold AFB, Tenn.; Air Force Flight Test Center, Edwards AFB, Calif.; Aerospace Maintenance and Regeneration Center, Davis-Monthan AFB, Ariz., Air Force Security Assistance Center, Wright-Patterson AFB, Ohio; and the 46th Test Wing, Air Armament Center, Eglin AFB, Fla.

Eventually, these new wings will all be designated as numbered wings to match the typical Air Force structure.

In the air-cooled section of the 309th Generator Squadron's airborne flight, Casey Maw uses a sanding disk to clean the outer casing of a C-5 Galaxy generator. The flight is responsible for restoring more than 4,200 aircraft generators a year. (AF photo by Beth Young)

